

distribution function for each of the coefficients $C_{m,n}$, the energy distribution function including a first factor based upon the magnitude of the Gabor coefficient, and a second factor varying according to the localized discrete window function of the Gabor transform; and
means for determining an update region for each coefficient $C_{m,n}$ in response to the first factor, wherein the distribution for each coefficient is computed within the determined update region; and
a second processor, coupled to the first processor, which processes the energy distribution function.
48. A signal analyzer, comprising:
a source of a sequence of digital signals representative

of an input signal;
an input buffer system connected to receive the sequence supplied by the source;
a first processor, coupled to the input buffer which receives the sequence from the input buffer, wherein the input buffer supplies the sequence to the first processor in a set of overlapping frames, wherein the first processor computes orthogonal-like discrete Gabor transform coefficients $C_{m,n}$ in response to the sequence, and a time-varying spectrum of input signal energy in response to the coefficients; and
a second processor, coupled to the first processor, which processes the spectrum.
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